

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

13. (currently amended) A method for scalable monitoring of a computer system comprising a plurality of computer units constituting hardware resources to be monitored forming a monitored domain, and a manager comprising a central computer system connected to a communication network that allows transfer of information between at least one of the resources and the manager, said resources including memories and having installed therein indicator agents, the method ~~being characterized in that it comprises~~ comprising:

- ~~a step for~~ organizing the monitored domain into a plurality of monitored subdomains (d1, d2) comprising a predetermined maximum number of resources (A1, A2, B1, B2),

- providing a plurality of indicators, said indicators representing an operational status of the resources of a subdomain,

- specifying the subdomain(s) of the computer system in which each indicator should be deployed,

- ~~a step for~~ automatically creating and configuring, for each subdomain, an information synthesis node comprising at least one synthesis agent stored in a memory of a resource,

- providing said resources with indicator agents for evaluating said indicators,  
each indicator agent being uniquely identified by the name of the indicator the

indicator agent calculates and by the subdomain in which said indicator agent is installed,

- for each subdomain, associating each indicator agent with each synthesis agent using the corresponding indicator value, the structure of each synthesis agent being identical to that of an indicator agent,

- for each subdomain, using indicator agents for calculating and storing indicator values in the memory of at least one resource,

- synthesizing by each synthesis agent said stored indicator values to define corresponding indicators, said indicators representing an operational status of the resources of a subdomain, evaluating said indicators by indicator agents of said resources, each indicator agent being uniquely identified by the name of the indicator the indicator agent calculates and by the subdomain in which said indicator agent is installed and being associated with each synthesis agent using the corresponding indicator value, and

- a step for modifying the associations between the synthesis agents and the indicator agents when [[a]] the predetermined maximum number of resources in a subdomain is reached, in order to accommodate the addition or deletion of indicators so that the monitored domain comprises a new architecture having, in each subdomain, a number of resources lower than the predetermined maximum number of resources.

14. (currently amended) A method for scalable monitoring of a computer system according to claim 13, ~~characterized in that~~ wherein the ~~step for~~ configuring an information synthesis node comprises, for each synthesis agent:

- ~~a step for~~ searching, in a table stored in the memory of a resource, for the name of the indicator agent or agents required to calculate the indicator of the synthesis agent, and

- ~~a step for~~ subscribing the synthesis agent to the indicator agents identified during the searching ~~search~~ ~~step~~, said ~~subscription~~ ~~step~~ subscribing allowing each synthesis agent to automatically receive, in a corresponding subscription table stored in the storage means of a resource, the new values of the indicators found.

15. (currently amended) A method for scalable monitoring of a computer system according to claim 14, ~~characterized in that~~ wherein the ~~step for~~ searching comprises:

- ~~a step for the~~ sending notification by the synthesis agent to a naming service dedicated to storing the associations between a subdomain name, an indicator agent and an indicator, said notification comprising the name of a given subdomain and a given indicator.

16. (currently amended) A method for scalable monitoring of a computer system according to claim 13, ~~characterized in that~~ wherein the ~~step for modification of~~ modifying the associations comprises:

- ~~a step for~~ installing at least one indicator agent in each new resource added to a subdomain,

- ~~a step for~~ sending, to the synthesis agents requiring the value of the indicator of the new indicator agent or agents, a notification comprising the identification of the new indicator agent or agents, and

- ~~a step for~~ subscribing each synthesis agent to the new indicator agents required to calculate the indicator of the synthesis agent.

17. (currently amended) A method for scalable monitoring of a computer system according to claim 14, ~~characterized in that~~ wherein the ~~step for modification of modifying the~~ associations comprises:

- ~~a step for~~ installing at least one indicator agent in each new resource added to a subdomain,

- ~~a step for~~ sending, to the synthesis agents requiring the value of the indicator of the new indicator agent or agents, a notification comprising the identification of the new indicator agent or agents, and

- ~~a step for~~ subscribing each synthesis agent to the new indicator agents required to calculate the indicator of the synthesis agent.

18. (currently amended) A method for scalable monitoring of a computer system according to claim 15, ~~characterized in that~~ wherein the ~~step for modification of modifying the~~ associations comprises:

- ~~a step for~~ installing at least one indicator agent in each new resource added to a subdomain,

- ~~a step for~~ sending, to the synthesis agents requiring the value of the indicator of the new indicator agent or agents, a notification comprising the identification of the new indicator agent or agents, and

- ~~a step for~~ subscribing each synthesis agent to the new indicator agents required to calculate the indicator of the synthesis agent.

19. (currently amended) A method for scalable monitoring of a computer system according to claim 13, ~~characterized in that~~ wherein the ~~step for modification of~~ modifying the association comprises:

- ~~a step for~~ selecting, for each subdomain, the resources to be deleted,
- ~~a step for~~ sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and
- ~~a step for~~ unsubscribing the synthesis agents from the indicator agents whose indications are contained in the notification.

20. (currently amended) A method for scalable monitoring of a computer system according to claim 14, ~~characterized in that~~ wherein the ~~step for modification of~~ modifying the associations comprises:

- ~~a step for~~ selecting, for each subdomain, the resources to be deleted,
- ~~a step for~~ sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and
- ~~a step for~~ unsubscribing the synthesis agents from the indicator agents whose indications are contained in the notification.

21. (currently amended) A method for scalable monitoring of a computer system according to claim 15, ~~characterized in that~~ wherein the ~~step for modification of~~ modifying the associations comprises:

- ~~a step for~~ selecting, for each subdomain, the resources to be deleted,

- ~~a step for~~ sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and
- ~~a step for~~ unsubscribing the synthesis agents from the indicator agents whose indications are contained in the notification.

22. (currently amended) A method for scalable monitoring of a computer system according to claim 16, ~~characterized in that~~ wherein the ~~step for modification of~~ modifying the associations comprises:

- ~~a step for~~ selecting, for each subdomain, the resources to be deleted,
- ~~a step for~~ sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and
- ~~a step for~~ unsubscribing the synthesis agents from the indicator agents whose indications are contained in the notification.

23. (currently amended) A method for scalable monitoring of a computer system according to claim 17, ~~characterized in that~~ wherein the ~~step for modification of~~ modifying the associations comprises:

- ~~a step for~~ selecting, for each subdomain, the resources to be deleted,
- ~~a step for~~ sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and
- ~~a step for~~ unsubscribing the synthesis agents from the indicator agents whose indications are contained in the notification.

24. (currently amended) A method for scalable monitoring of a computer system according to claim 18, ~~characterized in that~~ wherein the step for modification of modifying the associations comprises:

- ~~a step for~~ selecting, for each subdomain, the resources to be deleted,
- ~~a step for~~ sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and
- ~~a step for~~ unsubscribing the synthesis agents from the indicator agents whose indications are contained in the notification.

25. (original) A method for scalable monitoring of a computer system according to claim 13, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes.

26. (currently amended) A method for scalable monitoring of a computer system according to claim 14, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

27. (currently amended) A method for scalable monitoring of a computer system according to claim 15, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

28. (currently amended) A method for scalable monitoring of a computer system according to claim 16, further comprising determining the maximum number

of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

29. (currently amended) A method for scalable monitoring of a computer system according to claim 19, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

30. (currently amended) A method for scalable monitoring of a computer system according to claim 20, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

31. (currently amended) A method for scalable monitoring of a computer system according to claim 21, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

32. (currently amended) A method for scalable monitoring of a computer system according to claim 22, further comprising determining the maximum number of resources per subdomain to minimize the cost of calculating the indicators, or the number of synthesis nodes ~~is as low as possible~~.

33. (currently amended) A device for the scalable monitoring of a computer system comprising:



a plurality of computer units constituting hardware resources to be monitored and forming a monitored domain, said resources including memories having stored therein indicator agents,

means for organizing the monitored domain into monitored subdomains comprising a predetermined maximum number of resources,

a plurality of indicators characterizing the status or the operation of one or more resources of the computer system, each indicator agent being adapted for evaluating an indicator, each indicator agent being uniquely identified by the name of the indicator said indicator agent calculates and by the subdomain in which the indicator agent is installed,

means for creating and configuring, in a memory of at least one resource, information synthesis nodes comprising at least one synthesis agent stored in said memory of at least one resource to define corresponding indicators, the structure of each synthesis agent being identical to that of an indicator agent so as to evaluate corresponding defined indicators for synthesizing indicator values calculated and stored in the memory of at least one resource to define corresponding indicators, said indicators representing an operational status of the resources of a subdomain and being evaluated by the indicator agents installed in said resources, each indicator agent being uniquely identified by the name of the indicator said indicator agent calculates and by the subdomain in which the indicator agent is installed, the configuration of a synthesis agent comprising the storage, in the memory of a resource, of the associations between the synthesis agent and indicator agents, and

means for modifying the associations between the synthesis agents and the indicator agents when the predetermined maximum number of resources in a

subdomain is reached, so that the new architecture of the monitored domain comprises, in each subdomain, a number of resources lower than the predetermined maximum number of resources.

34. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 33, ~~characterized in that the~~ wherein said means for configuring a synthesis node ~~comprise~~ comprises means for searching, in a table stored in the ~~storage means~~ memory of a resource, for the name of the indicator agent or agents required to calculate the indicator of the synthesis agent, and means for subscribing the synthesis agent to the indicator agents identified by the means for searching; said means for subscribing allowing each synthesis agent to automatically receive, in a synthesis agent subscription table stored in the ~~storage means~~ memory of a resource, new values of the indicators found.

35. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 34, ~~characterized in that the~~ wherein said search means ~~comprise~~ comprises means for sending a notification by the synthesis agent to a naming service dedicated to storing, in a table stored in the memory of a resource, the associations between a subdomain name, an indicator agent and an indicator, said notification comprising the name of a given subdomain and a given indicator, and means for ~~[[the]]~~ sending a notification by the naming service to the requesting synthesis agent, of the name of the indicator agent or agents corresponding to the association of the given subdomain and the given indicator.

36. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 33, ~~characterized in that the~~

wherein said modification means ~~comprise~~ comprises means for creating and storing at least one indicator agent in each new resource added to a subdomain, means for sending, to the synthesis agents requiring the value of the indicator of the new indicator agent or agents, a notification comprising the identification of the new indicator agents or agents, and means for subscribing each synthesis agent to the new indicator agents required to calculate the indicator of the synthesis agent.

37. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 34, ~~characterized in that the~~ wherein said modification means ~~comprise~~ comprises means for creating and storing at least one indicator agent in each new resource added to a subdomain, means for sending, to the synthesis agents requiring the value of the indicator of the new indicator agent or agents, a notification comprising the identification of the new indicator agents or agents, and means for subscribing each synthesis agent to the new indicator agents required to calculate the indicator of the synthesis agent.

38. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 25, ~~characterized in that the~~ wherein said modification means ~~comprise~~ comprises means for creating and storing at least one indicator agent in each new resource added to a subdomain, means for sending, to the synthesis agents requiring the value of the indicator of the new indicator agent or agents, a notification comprising the identification of the new indicator agents or agents, and means for subscribing each synthesis agent to the new indicator agents required to calculate the indicator of the synthesis agent.

39. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 33, ~~characterized in that the~~ wherein said modification means ~~comprise~~ comprises means for selecting, for each subdomain of the resources to be deleted, means for sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and means for unsubscribing the synthesis agents from the indicator agents whose identifications are contained in the notification.

40. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 34, ~~characterized in that the~~ wherein said modification means ~~comprise~~ comprises means for selecting, for each subdomain of the resources to be deleted, means for sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and means for unsubscribing the synthesis agents from the indicator agents whose identifications are contained in the notification.

41. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 35, ~~characterized in that the~~ wherein said modification means ~~comprise~~ comprises means for selecting, for each subdomain of the resources to be deleted, means for sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the

deleted indicator agent or agents, and means for unsubscribing the synthesis agents from the indicator agents whose identifications are contained in the notification.

42. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 36, ~~characterized in that the~~ wherein said modification means ~~comprise~~ comprises means for selecting, for each subdomain of the resources to be deleted, means for sending, to the synthesis agents using the value of the indicator of the indicator agent or agents installed in the selected resource or resources, a notification comprising the identification of the deleted indicator agent or agents, and means for unsubscribing the synthesis agents from the indicator agents whose identifications are contained in the notification.

43. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 33, further comprising means for determining the maximum number of resources per subdomain for minimizing the cost of calculating the indicators, or the number of synthesis nodes.

44. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 36, further comprising means for determining the maximum number of resources per subdomain for minimizing the cost of calculating the indicators, or the number of synthesis nodes.

45. (currently amended) A scalable monitoring device for scalable monitoring of a computer system according to claim 39, further comprising means for determining the maximum number of resources per subdomain for minimizing the cost of calculating the indicators, or the number of synthesis nodes.